(1 Data Item)

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A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGO	C. CATEGORY:				
		A-	A-A TDP [] TM [] OTH		OTHER [X] MIS	C			
D. SYSTEM/ITEM			E. CONTRACT/PR	R NO.	F. CONTRACTOR				
Sensor Payload & 2	Algorithm Develo	p.	F04701-97-	-C-0028	Hughes SI	Hughes SBRS			
1.DATA ITEM NO.	2. TITLE OF DATA ITEM				3. SUBTITLE	3. SUBTITLE			
A-A002	Technical Report	echnical Report-Study/Services				Data Packages - SRR, SFR, and PDR			
4. AUTHORITY (DATA ACQUISITION DOC. NO.) 5. CONTRACT REFEREN			REFERENCE				6. REQUIRING OFFICE		
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7. DD 250 REQ	9. DIST STATEMENT	.0. FREQUENCY	12.	DATE OF FIRST S	UBMISSION				
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8. APP CODE	F	1. AS OF DATE	13.	DATE OF SUBSEQ	SUBMISSION				
None		N/A	7	BLK	16				

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4 (cont) Contractor format acceptable.

Para 10.2(a): Replace "Report" with "Document" and "and reporting period" with "originator and document security classification."

Specifically for Data Packages include:

Para 10.2(c)(2): Replace "results obtained from the analytic effort" with "content for each included section".

Para 10.2(c)(3): Replace "their condensed technical substantiations" with "Recommendations with summary descriptions of included data supporting them."

Para 10.2(d): Change to read "Section II - Main body - include the following"

SRR: (a) SRR Presentation Material:

The Systems Requirements Review (SRR) for the sensor risk reduction shall cover the following four specific areas:

1. Preliminary Functional Design

The contractor shall provide an introduction of the design concept, both sensor hardware and algorithms, which have been developed to date. The hardware portion shall cover a top level sensor design, discuss all major subsystems, and address key design/technology drivers and limitations. The algorithm portion shall consist of a data flow diagram illustrating and explaining the relationships between the data collected by the sensor and the final Environmental Data Record (EDR) product. The science algorithms used to produce the required EDRs will be discussed including all relevant equations and analyses. Data from other sources required to produce the EDR shall be discussed. The systems engineering and integration portion shall discuss the flow of data through hardware and algorithm and all the preliminary interface

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Sensor Payload & .	Algorithm Develo	p.	F04701-97-C-0028		Hughes SBRS				
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7. DD 250 REQ	9. DIST STATEMENT	10. FREQUENCY	12. DA	TE OF FIRST SUBM	ISSION				
LT	REQUIRED	BLK 1	BLK 16 BLK 16						
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None		N/A	1	BLK 16	5				

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requirements. Significant contractor issues and trade studies, which include risk areas, shall be raised at this point to inform the IPO of potential problem areas and the proposed resolution/mitigation method.

- 2. Sensor Mission and Requirements Analysis
- This presentation shall include a discussion of the contractor's interpretation and implementation of the SRD. The contractor shall review each section of the SRD and explain their interpretation/understanding of the system and EDR requirements to the IPO. Recommended values for TBDs and TBRs shall be provided. The IPO will review the contractor's understanding of the SRD and provide feedback for correctness and possible changes.
- 3. Sensor Requirements Allocation Document

This document shall discuss the detailed relationships between the SRD and the contractor's draft A-Spec. The contractor shall list each requirement in the SRD and demonstrate the flowdown into their draft A-Spec. The understanding of this relationship is critical to SRR success and the demonstration that the requirements have been correctly translated into the contractor's design. The draft A-Spec should also address any derived requirements which are not contained in the government SRD, internal company requirements, and other constraints. For the derived requirements, the contractor shall make available the details of this derivation. The final section of the contractor draft A-Spec shall contain the Verification Matrix which clearly illustrates the requirements source, flowdown to the draft A-Spec, and currently understood method of requirements verification as described in SRD Section 4.3 (test, analysis, or inspection).

4. Preliminary Life Cycle Cost Estimate

The Preliminary Life Cycle Cost estimate (PLCCE) shall be prepared separately from the requirements portion of the SRR. This PLCCE shall be in US 1997 Dollars and at SRR should include: non-recurring development cost for the instrument (including first unit and its support systems) and the recurring

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None		N/A	N/A BLK 16						

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cost for each subsequent unit (per CLIN delivery schedule). For SFR and PDR, also include the long term support costs for the instrument (including storage), spacecraft payload integration, launch support, and on-orbit instrument anomaly resolution and maintenance. Day to day sensor/satellite and data processing and distribution costs are specifically excluded from this estimate

SFR: (a) SFR Presentation Material:

Presentation material and any related supporting documentation.

(a) Sensor (Suite) System Definition Documentation

Documentation including, but not limited to the following:

- (1) Functional level design
- (2) Preliminary life cycle cost data for X units and average unit cost for X units, including all non-recurring and recurring costs.(2nd draft submission)

PDR: (a) PDR Presentation Material:

Presentation material and any related supporting documentation.

(a) Sensor (Suite) System Definition Documentation

Documentation including, but not limited to the following:

- (1) Preliminary Product Definition Documentation
- (2) Preliminary life cycle cost data for X units and average unit cost for X units, including all non-recurring and recurring costs.(3rd draft submission)

Agendas:

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8. APP CODE	F	11. AS OF DATE	DF DATE 13. DATE OF SUBSEQ SUBM			IISSION		
None		N/A						

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- 4 (cont) Para 10: The agenda will contain a synopsis clearly explaining each agenda topic.
- 10, 12, 13 (cont) Submit 15 CD prior to major program reviews.

Presentation Materials:

- 4 (cont) Para 10: The minutes shall contain a copy of action items, dispositions and agreements. A copy of the presentation materials (viewgraphs) will be submitted with the minutes.
- 10, 12, 13 (cont) Copies of charts shall be available at the major program reviews for all attendees. Copies of meeting minutes and viewgraphs with corrections incorporated shall be delivered within seven (7) working days after each major review.

Research Grade Code:

- 4 (cont) Para 10: The Research Grade Code delivered to the Government for use on the Government Test Bed will comply with the requirements and configuration on the Government Test Bed which is currently (TBD).
- 10, 12, 13 (cont) (TBD)

Letter of Transmittal (LT) to NPOESS(DMO) on each submittal.

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